

# data hacking: times & events

Semantics 3, UCLA Linguistics

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## 1 today's goals

- what evidence is there for representing times in our semantics?
- what evidence is there for representing events in our semantics?
- what sorts of natural language phenomena are associated with each?
  - can we find directly referring expressions?
  - can we find modifiers? quantifiers?
- how might we want our semantics to account for these phenomena?

## 2 tense

- what would we expect to see if tenses were directly referring expressions? proforms? quantifiers? (Partee, 1973, 1984)
  - what morphological behavior?
  - what syntactic behavior?
  - what semantic behavior?
- Hornstein (1990): there are intrinsic metasemantic differences between operators and modifiers, so we can test this characterization of tense (and temporal measure phrases):
  - operators are iterable: (1) is true at some time seven weeks before  $t$ ...

(1) three weeks earlier (four weeks earlier  $\phi$ )

  - ...in contrast to the English translation:

(2) #Three weeks earlier, four weeks earlier, John had left.

  - a modifier treatment of these temporal adverbials: two contrasting requirements on the relationship between  $t_0$ , the time of John's leaving, and  $t$ , the reference time
- the Queen of Tense: Yael Sharvit (Sharvit, 2013)
  - whether tense is an operator/quantifier or a pronominal is a cross-linguistic parameter<sup>1</sup>
  - based on 'sequence of tense' data

(3) a. A left the meeting before B arrived.

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<sup>1</sup>She has later walked this back (p.c.).

- b. \*A left the meeting before B arrives.
- (4) a. \*Taroo-wa [Hanako-ni at-ta mae-ni] denwa-o si-ta.  
Taro-TOP Hanako-DAT meet-PST before phone-ACC do-PST  
'Taro phoned before he met Hanako.'
- b. Taroo-wa [Hanako-ni au mae-ni] denwa-o si-ta.  
Taro-TOP Hanako-DAT meet-PRS before phone-ACC do-PST  
'Taro phoned before he meets Hanako.'

### 3 events?

- event quantifiers? (Rothstein, 2009):

- (5) a. Mary opens the door when(ever) the bell rings.  
b. Mary opens the door if the bell rings.

- event proforms?
- event modifiers?
- eventy-flavored nominals? ('phase nouns,' Gupta, 1980)<sup>2</sup>

- (6) a. Two million passengers were served by National Airlines in 1975.  
b. Two million persons were served by National Airlines in 1975.

*ambiguous*  
*unambiguous*

- event counters?
- (what's going on with aspect?)

### 4 some formalism

- what's the difference between an event and a ⟨time,location⟩ pair?
- if we've got events, do we need times? (locations?)

## References

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<sup>2</sup>Krifka (1990): "As a passenger can be defined with respect to single events of transportations, it cannot possibly stand in an iterative relation with respect to an event of transportation. Or, to put it another way: one passenger is subjected to one event of transportation exactly one time"... The problem goes away when we consider events "other than those which play a role in the definition of phase nouns", e.g. *Two million passengers/persons were served a hot meal by National Airways in 1975*.